Ref:
RFP No. NCI-CB-74-29
Proj. No. CB-43902-S

November 23, 1973.

Further information.

I share the skeptical caution expressed by many of many colleagues who are deeply involved in other aspects of treatment of and research on cancer. The signature compounds so far identified and reported in published work, and in our own previous studies, are not very promising as reliable indicators of the presence of specific forms of cancer. Our own preliminary work suggests, however, that compounds like -amino-isobutyric acid may be more useful in monitoring the progress of established neoplastic disease under treatment, in remission, and in relapse states.

We are, therefore, somewhat less than enthusiastic about pressing programs for the routine assay of already known and well-recognized metabolites in large numbers of samples. Our own capabilities and interests are rather focussed on the discovery and characterization of unexpected compounds, as elaborated in the text of the "Genetics Research Center" proposal. For the extension of such work, we believe we will be able to negotiate access not only to the pediatric cancer patients whose care is under the management of Dr. Lyman Wilbur, and with whom we have already collaborated, but also to several hundred adult patients with various forms of cancer being seen in the clinics of the departments of medicine, surgery and radiology (cancer radio- and chemotherapy) here at Stanford. The existing clinical cancer research center programs here would also provide a framework for other correlative, intensive studies. These would have to be negotiated in the context of a specific proposal, which is evidently not being solicited at this time.

In addition, Dr. Duffield would be quite interested in extending the methodology of mass fragmentography for the quantitative analysis of interesting metabolites at sub-nanogram levels. Such procedures would be indispensable to many investigators working on various related lines of inquiry. Indeed, much of the controversy about the significance of indicator compounds may be a consequence of analytical artefacts that are amenable to resolution by this powerful method.